Installation Guide
MAX-AVP Audio/Video Player

Overview

The MAX-AVP (FIG. 1) Audio/Video Player provides standard media playback and control functionally, featuring multiple audio and video outputs. The MAX-AVP functions as a standalone player, and as a player for MAX server content.

Key features include:

- Plays DVDs (and audio CDs) from its internal DVD/CD player
- Plays audio and video content over a CAT5 network interface from a MAX-HT server.
- Provides A/V output in multiple formats: Component Video, Composite Video, S-Video and HDMI™ (High-Definition Multimedia Interface).
- Provides both analog stereo and coaxial digital audio outputs. The supported digital audio outputs are Dolby® Digital (S/PDIF), Dolby® Digital-Plus (Surround 5.1, 7.1), and DTS® Surround.

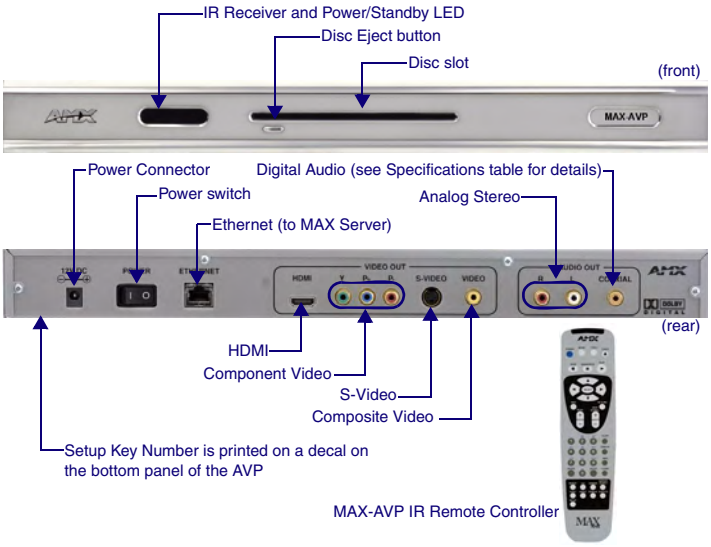

FIG. 1 MAX-AVP

***Note**: Refer to the MAX-AVP Audio/Video Player Instruction Manual (available online at www.amx.com) for additional information, including detailed descriptions of the IR Remote Controller, and the MAX-AVP User Interface.*

Product Specifications

MAX-AVP (FG2178-51) Specifications			
Power:	• 13.5 VDC 4.4A external power supply (included) • 110-240 VAC 50/60 Hz		
Current Draw:		Peak	Running
DC:	• Current: • Watt:	0.94 12.502	0.74 9.82
AC:	• Current: • Watt:	0.125 14.925	0.101 12.0594
Supported media types:	• DVD • DVD+R/-R/-RW/+RW • Audio CD		
Supported formats:	• MPEG-2 MP/ML • AC3 audio • MP3 audio • LPCM audio • PCM audio • MPEG2 Layer 2 audio • FLAC audio		
Video outputs:	• Composite video • RGB Component video • S-Video • HDMI™ (High-Definition Multimedia Interface)		
Video broadcast standards	• NTSC • PAL		
Supported Aspect Ratios:	• 4:3 - Pan & Scan (full screen) • 4:3 - Letterbox • 16:9 - Widescreen		

MAX-AVP Specifications (Cont.)	
Audio Outputs:	• Digital: - Dolby® Digital (S/PDIF) - Dolby® Digital-Plus (Surround 5.1, 7.1) - DTS® Digital Surround • Analog: stereo
Front Panel Components:	• IR Receiver and Power/Standby LED • CD/DVD-ROM drive slot • Disc Eject button
Rear Panel Connectors:	• 1/4” DC power connector • Power Switch • Ethernet port: RJ-45 Ethernet port provides 10/100 network connectivity between the AVP and the MAX server • HDMI™ output: 19-pin HDMI cable connector • Component Video output: 3 RCA connectors (Green, Blue, Red) • S-Video output: Mini-Din4 port • Composite Video output: RCA connector (Yellow) • Analog Audio outputs (R/L): RCA connectors (Left = White, Right = Red) • Coaxial (digital) Audio output: RCA connector (Orange)
Operating Environment:	• Operating temperature: 0º to 50º C (32° to 122° F) • Storage temperature: -45º to +85º C (-49° to 185° F) • Operating relative humidity: 5% to 85% (non-condensing) • Intended for indoor use only
Dimensions (HWD) (without rack ears):	• 2" x 17" x 12.44" (50.67 mm x 431.80 mm x 316.10 mm) • 1 RU (mounts in a standard 19” equipment rack)
Weight:	10.10 lbs (4.58 kg)
Included Accessories:	• AMX PS4.4 Power Supply (FG423-44) • Handheld IR Remote Controller (FG2178-52) • Audio/Video Cables (one of each): - HDMI™ cable (6.5’ / 2.0m - FG10-2178-05) - Component Video cable (6’ / 1.82m - FG10-2178-05) - S-Video cable (6’ / 1.82m - FG10-2178-01) - Composite Video cable (6’ / 1.82m -FG10-2178-04) • Rackmount brackets (set of 2 -FG62-2178-46)
Other AMX Equipment:	• NXA-ENET24 Managed Ethernet Switch (FG2178-60)
Certifications:	• FCC/CE Class B • EN60950
Trademark Acknowledgements:	• HDMI, and “High-Definition Multimedia Interface” are trademarks or registered trademarks of HDMI Licensing LLC. • “Dolby” and the double-D symbol are trademarks of Dolby Laboratories. • “Dolby Digital” and “Dolby Digital-Plus” are registered trademarks of Dolby Laboratories. • “DTS” is a registered trademark of DTS, Inc.

MAX-AVP Supported Resolutions		
Mode Name	**Resolution**	**Outputs**
NTSC (M)	525 line (480vis), 60 Hz, Interlaced, standard NTSC	• Composite • Component • HDMI
NTSC (M) Japan	525 line (480 vis), 60 Hz, Interlaced, NTSC with Japanese black-level	• Composite • Component • HDMI
PAL (BG)	625 line (576 vis), 50 Hz, Interlaced, standard PAL	• Composite • Component • HDMI
PAL M	525 line (480 vis), 60 Hz, Interlaced, NTSC framing with PAL color	• Composite • Component • HDMI
PAL 60	525 line (480 vis), 60 Hz, Interlaced, NTSC framing with PAL color	• Composite • Component • HDMI

MAX-AVP Supported Resolutions (Cont.)		
Mode Name	**Resolution**	**Outputs**
480i60	525 line (480vis), 60 Hz, Interlaced, standard NTSC	• Composite • Component • HDMI
480p59	525 line (480 vis), 59.96Hz, NTSC Progressive Scan	• Component • HDMI
576p50	625 line (576 vis), 50 Hz, PAL Progressive Scan	• Component • HDMI
HDMI-only modes	ATSC/DTSC standards for NTSC-style systems (59/60 hz) and PAL-style systems (50hz) • 720p59 • 1080i50 • 1080p50 • 720p60 • 1080i59 • 1080p59 • 720p50 • 1080i60 • 1080p60	

Installation Procedures

There are two approaches to installing the MAX-AVP: either as a standalone DVD player, or as a networked component of a MAX system. Both methods are described below:

As a Stand Alone DVD Player

The MAX-AVP can be installed and used as a stand-alone DVD player, in which case it behaves like any other consumer-level A/V component and offers several A/V output options:

1. Connect one of the two audio outputs on the AVP (*Analog R/L* or *Coaxial*) to an audio amplifier.
2. Connect one of the four video outputs (*HDMI™*, *Component*, *S-Video* or *Composite*) on the AVP to a display device.

As a Networked Component of a MAX System

- MMS servers communicate via Ethernet to up to 25 MAX-AVM Audio-Video Modules and/or MAX-AVP Audio -Video Players.
- Multiple AVMs and/or AVPs require a Gigabit Ethernet switch (not included) as indicated in FIG. 2.

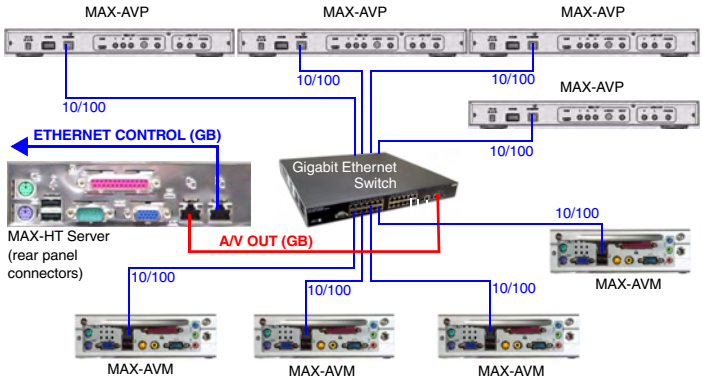

FIG. 2 Example installation using multiple MAX-AVPs and AVMs

Adding the AVP to a MAX System

There are two proceedures involved in adding the AVP to a MAX system:

Step One: Installing the MAX-AVP Key In the MAX-HT Server

In order for the AVP(s) in the system to be recognized by the MAX-HT server, they must each be added to the system. Use the *Server Configuration* options in the WinMAX software application (available for download at www.amx.com) to add AVPs to the server.

Note: The process for adding AVPs to the MAX-HT server is identical to adding AVMs: AVPs are added **as AVMs** in the Add Output Modules admin menu:

1. Open the *System Information* tab in WinMAX, and click on the **Server Configuration** button to access the MAX Admin menu.
2. Go to **Output Module Setup > Add Output Module > AVM** to access the *Enter Output Number* dialog.
3. In the *Enter Output Number* field, enter an available server output/zone number (*range = 1 - 33*). Click **OK** to proceed.

   ***Note**: The server will not allow you to assign an output to an output/zone that is already in use. To determine which server outputs are already being used, select **View** from the Output Module Setup menu.*

   - If other output modules (AOM, AVM or AVP) have already been added to the server, then assign the AVP to the next available output.
   - Note that AVPs take only one output on the MAX-HT server.
4. In the *Enter Serial Number* field, enter the Key number of the AVP you are adding to the system in the text box. The Key number is printed on a decal located on the bottom panel of the AVP. The Key number is also indicated on the AVP's Setup page (press SETUP on the remote controller to access the MAX-AVP Setup Page, and select the *System* tab).
5. The system will notify you that the module has been added to the system. Click **OK** to return to the Output Module Setup menu.

   Once the module has been added, select **View** from the Output Module Setup menu. The module you just added should appear in the list of Installed Output Modules. AVP modules are listed by MMS output /zone number assignment, Key and IP address.

Step Two: Connecting the AVP to a MAX-HT Server and Display Device

Note: Be sure to power up the server **before** applying power to the MAX-AVP.

1. Use audio cables (not included) to connect to the audio output on the AVP to an audio amplifier.
2. Use one of the four video cables (*HDMI*, *Component Video*, *S-Video* or *Composite* to connect to the video output on the AVP to the display device.
3. Use an Ethernet cable to connect the AVP's Ethernet port to a Gigabit Ethernet switch.
4. Use an Ethernet cable to connect the Gigabit switch to the **A/V OUT** connector on the MAX-HT server.
5. Connect the AVP's included power supply.
6. Turn on the power switch (on rear panel), and allow up to one minute for the AVP to initialize.

Region Code Settings

Note that for DVDs, the region code of the DVD disc must match the region code setting on the internal DVD drive on the AVP.

By default, AVP units are set to ***Region Code 1***.

Use the Region Control options on the Setup Page - Locale tab (FIG. 3) to change the DVD region code setting on the MAX-AVP:

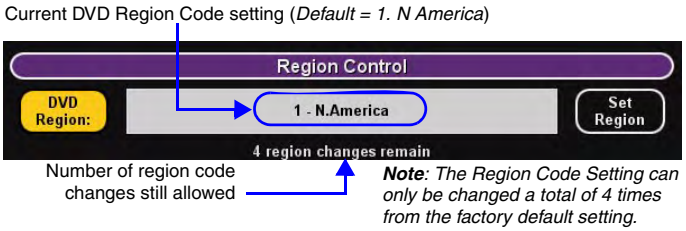
Current DVD Region Code setting (Default = 1. N America)
Region Control
DVD Region:
1 - N.America
Set Region
4 region changes remain
Number of region code changes still allowed
Note: The Region Code Setting can only be changed a total of 4 times from the factory default setting.

FIG. 3 Setup Page - Locale tab (Region Control setting)

1. Press SETUP on the remote controller to access the MAX-AVP Setup Page, and select the **Locale** tab.
2. Highlight **DVD Region** and press SELECT (on the remote controller) to scroll through the different region codes (displayed in the text field) until you see the region that you want to set the AVP to.
3. Highlight and select **Set Region**. The system prompts you to verify this action, and reminds you of the number of region code changes still allowed.
4. Highlight and select **Accept** to change the region code, or Cancel to return to the Setup Page – Locale tab without changing the region code.

Troubleshooting

In case of Ethernet communications problems, check the following:

- The Link (L) LED next to the Ethernet port should be on (FIG. 4). If not, check your cables and connectors.
- Use the MAX-AVP Setup pages to verify the IP settings (IP Address and Subnet Mask), and verify that these settings are appropriate for your network configuration (Refer to the *MAX-AVP Audio-Video Player Instruction Manual* for details).

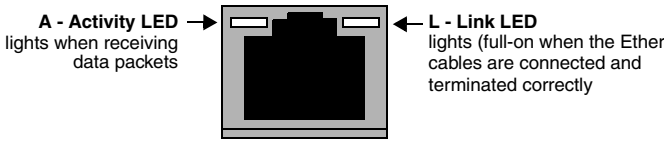
A - Activity LED
lights when receiving data packets
L - Link LED
lights (full-on when the Ether cables are connected and terminated correctly

FIG. 4 Ethernet port LEDs

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